STAR WARS™

X-WING Fighter™

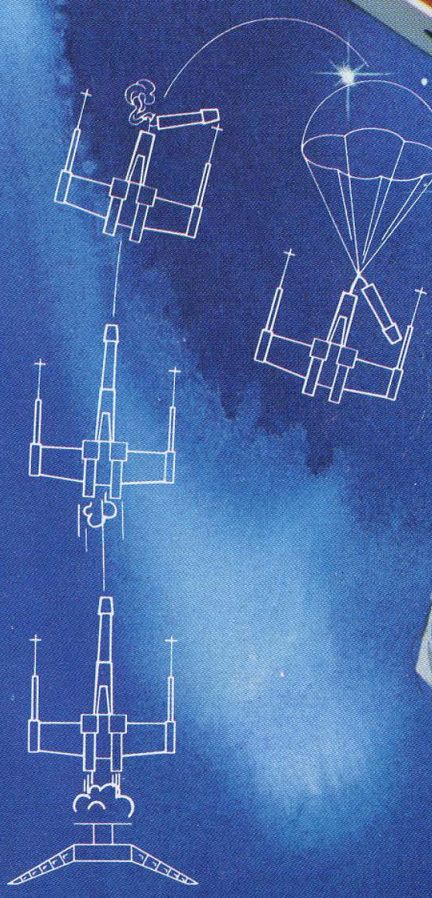
FLYING MODEL ROCKET

SKILL LEVEL 2

1—Beginner 2—Intermediate
3—Craftsman 4—Advanced
5—Expert

Flights Over 300 Feet!

Scale model of the T-65 X-Wing Fighter piloted by Luke Skywalker during the Rebel Forces attack on the Imperial Death Star. Spectacular display model with realistic detailing and three-color decals. Easy-to-assemble with die-cut balsa fins, plastic fuselage, and quick-release engine mount. Small balsa fins have been added for Earth flight.



Specifications:
Length: 10.9″ (27.6 cm)
Diameter: 1.4″ (33.6 mm)
Wing Span: 8.9″ (22.5 cm)
Weight: 3.5 oz. (99.2 g)
12″ parachute recovery

Recommended Engines:
B4-2 (First Flight) B4-4,
B6-2, C6-3 and C6-5

This is a hobby kit requiring assembly. Recommended for ages 10 to adult. Engines, launch system, glue and finishing supplies are not included. Adult supervision is suggested for those under 12 years of age when flying model rockets.

ESTES®
A SUBSIDIARY OF DAMON

ESTES INDUSTRIES
PENROSE, COLO. 81240 U.S.A.

THE HOBBY INDUSTRY OF AMERICA PROMOTES ACHIEVEMENT

#1298

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STAR WARS™ FLYING MODEL ROCKET

1 MODEL KIT Paint and Glue Not Included • 1 MODÈLE RÉDUIT Peinture Et Colle Non Comprises

ESTES®

A SUBSIDIARY OF DAMON

Fly Estes Model Rockets

ESTES INDUSTRIES PENROSE, COLO. 81240 U.S.A.

Distributed in Canada by: Hobby Industries, 24 Ronson Drive, Rexdale, Ontario M9W 1B4

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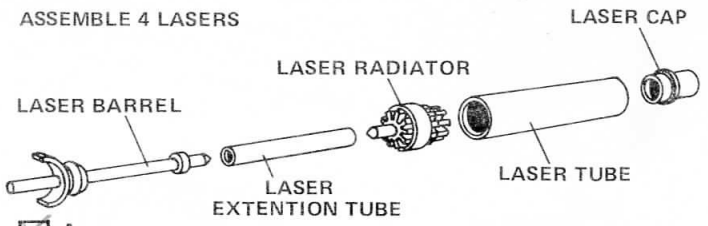
ASSEMBLY INSTRUCTIONS

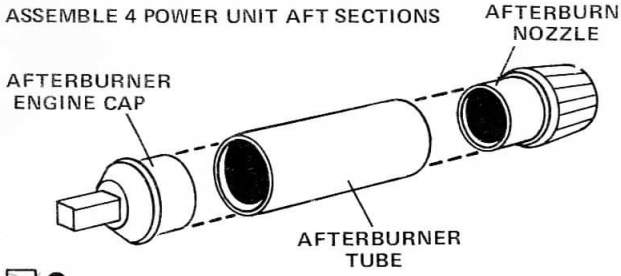
ASSEMBLE 4 LASERS



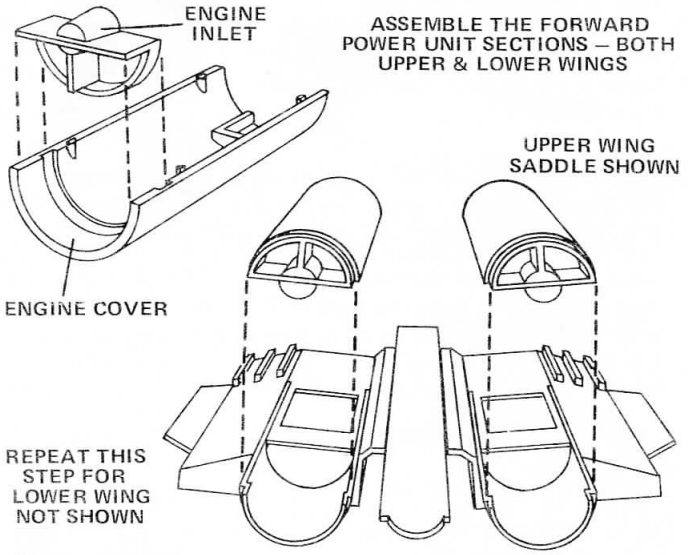
☒1 Assemble the laser pods. Locate all four laser pod tubes (part A), four each laser extension tubes (part B), laser caps (part C), laser radiators (part D), and laser barrels (part E). Smear a small amount of tube type plastic cement around the inside of both ends of all four laser pod tubes and laser extension tubes. When the cement is dry, smear another portion of plastic cement around one end of each laser pod tube and install one laser cap in each of the tubes. Using more plastic glue, install the laser radiators in the opposite ends of the laser pod tubes.

Cement the laser extension tubes to the forward ends of the laser radiators, then cement the laser barrels into the forward ends of the laser extension tubes. Allow all four laser assemblies to dry completely.

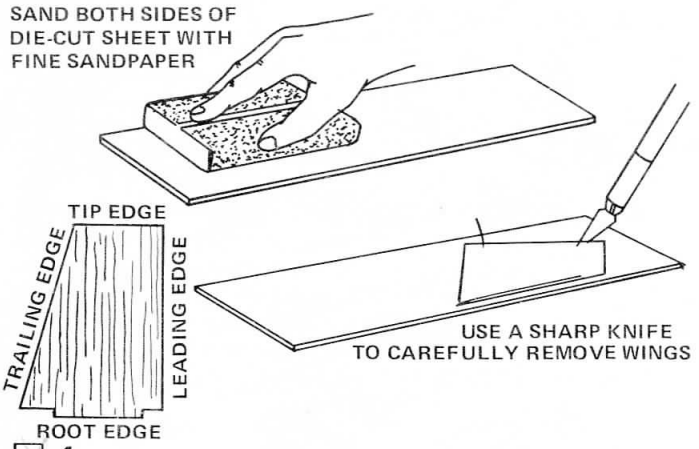
ASSEMBLE 4 POWER UNIT AFT SECTIONS



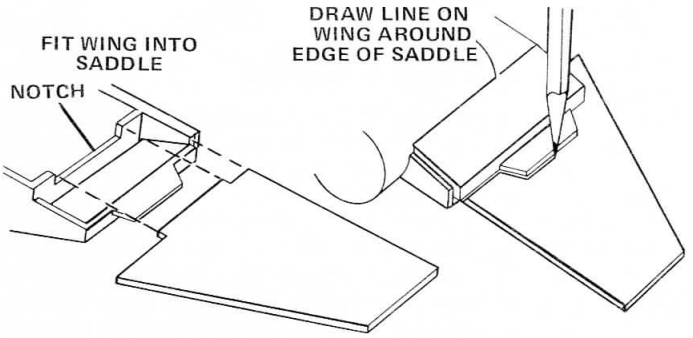
☒2 Assemble the afterburner sections. Locate four afterburner tubes (part F), four rear engine caps (part G), and four afterburner nozzles (part H). As in Step 1, smear a small amount of tube type plastic cement around the inside of both ends of all four afterburner tubes. When dry add another layer of cement and insert an afterburner nozzle in one end and an afterburner engine cap in the opposite end of each afterburner tube. Allow these to dry completely.

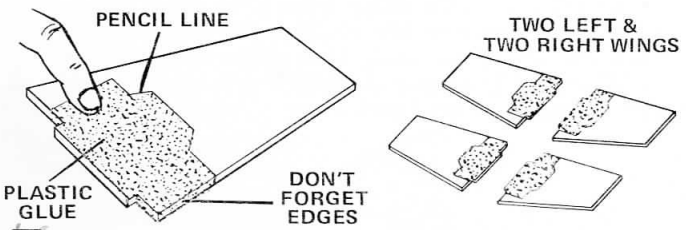

ENGINE INLET
ASSEMBLE THE FORWARD POWER UNIT SECTIONS – BOTH UPPER & LOWER WINGS
UPPER WING SADDLE SHOWN
ENGINE COVER
REPEAT THIS STEP FOR LOWER WING NOT SHOWN

☒3 Assemble the forward power unit sections. Locate the upper wing saddle (part I), lower wing saddle (part J), four engine inlets (part K), and four engine covers (part L). Use plastic cement to assemble the engine inlets to the engine covers. When dry, locate two of the engine covers in their proper place on the upper wing saddle. Remove covers, apply plastic cement to edges, and press into place. Repeat this operation with the bottom wing saddle and the two remaining engine covers. Allow to dry.

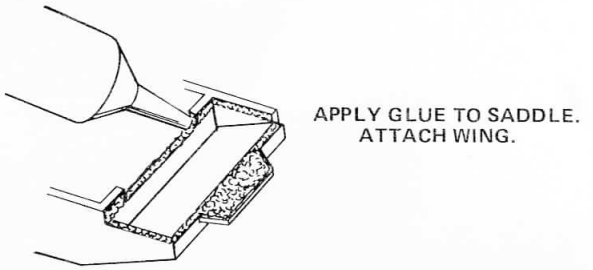

SAND BOTH SIDES OF DIE-CUT SHEET WITH FINE SANDPAPER
TIP EDGE
TRAILING EDGE
LEADING EDGE
ROOT EDGE
USE A SHARP KNIFE TO CAREFULLY REMOVE WINGS

☒4 Lightly sand the balsa die-cut wing sheet (part N), then free the wings from the sheet with a sharp modeling knife. Sand all wing edges square and again lightly sand the flat surfaces.

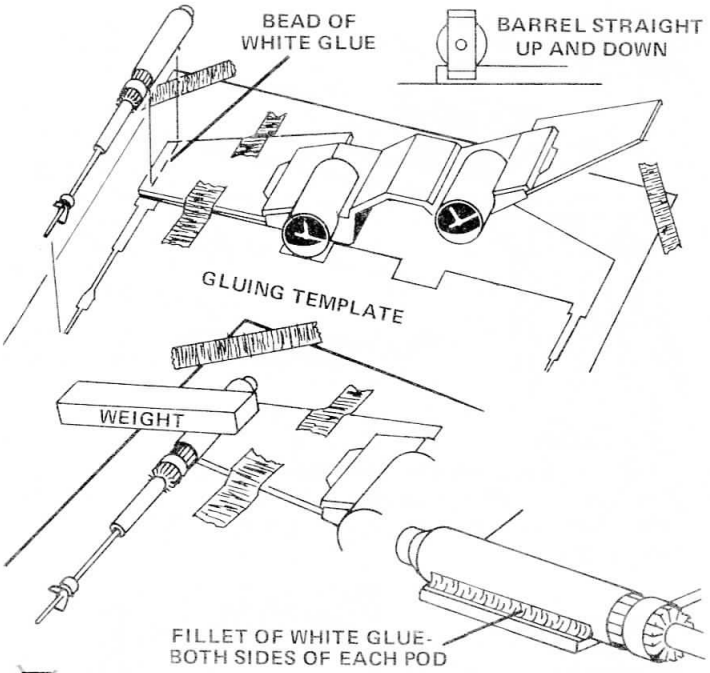




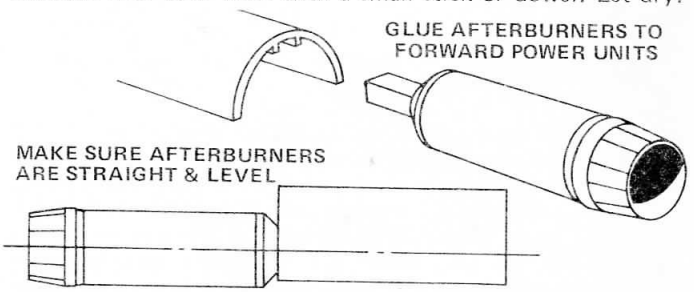
☒5 Position a wing in one of the saddle openings. The tab at the base of the wing fits into a notch in the underside of the saddle. Hold the wing in place and draw a pencil line along the top of the wing where it extends from the saddle. Remove the wing and apply plastic glue liberally to the area inside the penciled line. Use your finger to work the glue into the wood. Repeat this proceedure with remaining wings. Remember, there are two left and two right wings. Let the glue dry thoroughly before proceeding with step 6.



☒6 Apply plastic glue to one wing saddle opening in the areas where it will contact the wing. Select a wing that has glue on the side that will fit against the saddle and press into place. Hold the two pieces together until the glue begins to set. Lay this aside and glue a wing into the other saddle. After the glue has set, attach the remaining two wings to the other side of each saddle. Let the glue dry for a couple of hours before disturbing the assemblies.

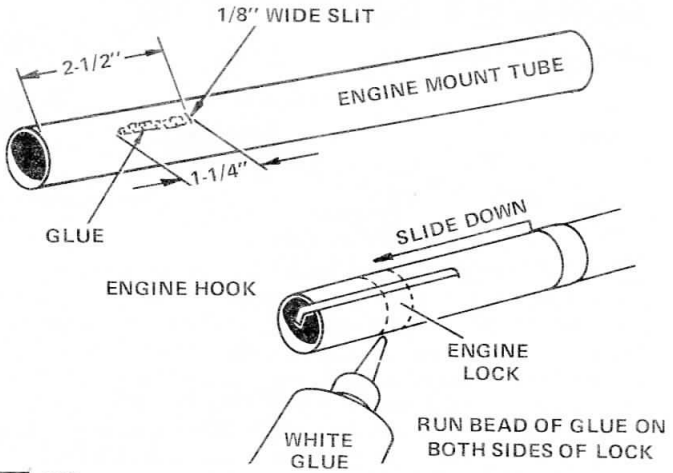


☒ **7** Note: study the illustration carefully before proceeding. Tape the printed gluing template (part M) to a flat surface. Position one wing exactly over the appropriate template (right or left) and tape the wing to the template. Run a bead of white glue from top to bottom of wing about 1/4" from the edge. Place a laser pod assembly on the wing making sure the half moon shaped piece on the barrel is straight up and down. Carefully align the pod over the template and hold in place until the glue begins to set. Place a small weight on top of the pod and let set for a half hour before disturbing. After the glue has dried, remove the assembly and repeat the process with the remaining wings and laser pods. When the pod assemblies are dry, run a fillet of white glue along both sides of each laser tube. Smooth into even fillet with a small stick or dowel. Let dry.

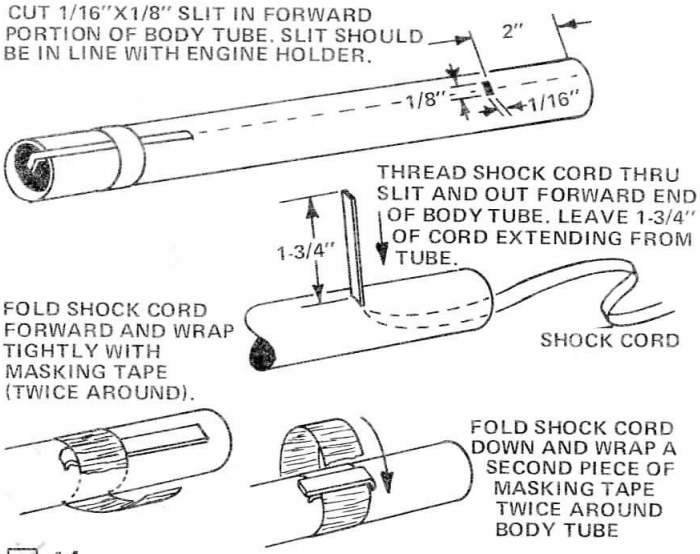


☒ **8** Attach the afterburner units to the wing/saddle assemblies. The front caps of the afterburner units have square ends that fit into sockets in the rear of the engine covers. Use a liberal amount of plastic cement and hold the afterburner units in place until glue sets. Make sure the afterburners are straight and level. Allow the completed assemblies to dry for a couple of hours before disturbing.

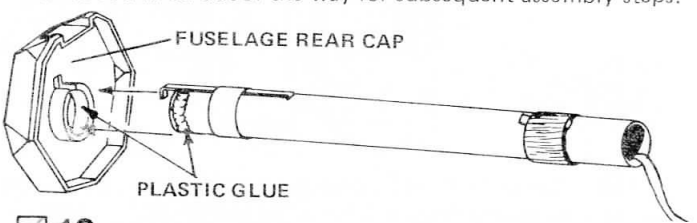
☐ **9** Again lightly sand each wing until it feels smooth. Apply a liberal coat of sanding sealer to all exposed portions of each wing and allow to dry. Sand lightly and apply another coat of sanding selaer. Repeat with a third coat, sanding lightly until the wings feel smooth.



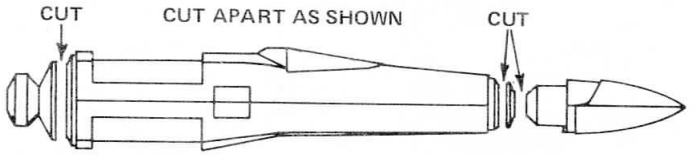
☐ **10** Find the engine mount tube (part O), the engine hook (part P) and the lock (part Q). Mark the engine mount tube 2-1/2" from one end. Cut a small slit 1/8" wide at the mark. Run a line of white glue 1-1/4" rearward from the slit. Push one end of the engine hook into the slit and lay the hook down into the glue. Slide the lock ring from the opposite end of the tube down mid-way over the engine hook. Smear a band of white glue around both edges of the ring and allow to dry.

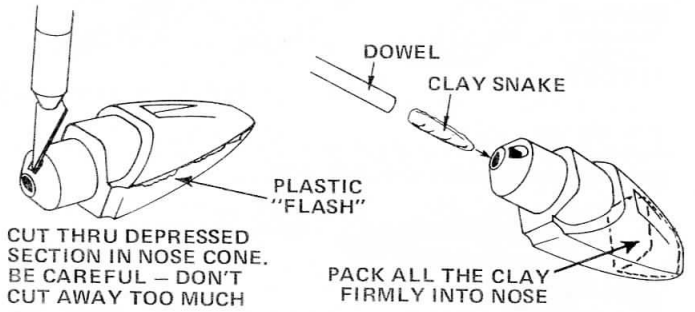

CUT 1/16"X1/8" SLIT IN FORWARD PORTION OF BODY TUBE. SLIT SHOULD BE IN LINE WITH ENGINE HOLDER.
2"
1/8"
1/16"
THREAD SHOCK CORD THRU SLIT AND OUT FORWARD END OF BODY TUBE. LEAVE 1-3/4" OF CORD EXTENDING FROM TUBE.
1-3/4"
FOLD SHOCK CORD FORWARD AND WRAP TIGHTLY WITH MASKING TAPE (TWICE AROUND).
SHOCK CORD
FOLD SHOCK CORD DOWN AND WRAP A SECOND PIECE OF MASKING TAPE TWICE AROUND BODY TUBE

☐ **11** Mark the engine mount tube 2" back from the end opposite the engine hook. The mark should be in line with the engine hook. Cut a small 1/8" wide slit at the mark and push one end of the shock cord (part R) into the slit. Pull the shock cord from the inside of the tube until only 1-3/4" of the cord remains protruding from the outside. Fold this short section forward along the tube and secure it to the tube with two wraps of masking tape as shown. Stuff shock cord down into engine tube so it will be out of the way for subsequent assembly steps.

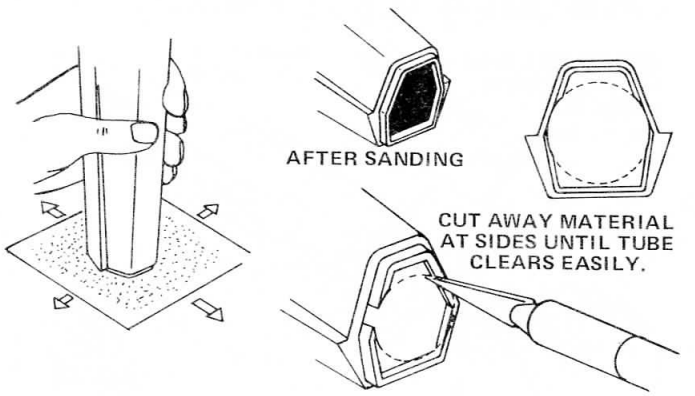


☐ **12** Find the fuselage rear cap (part S). Smear a small portion of plastic cement around the outside of both ends of the engine mount tube for a length of 1/4". Allow to dry. Apply plastic cement around the inside edge of the fuselage rear cap as shown and insert the engine mount tube being sure the engine hook is centered in the rear cap opening. Push the tube until it stops. Set aside to dry.

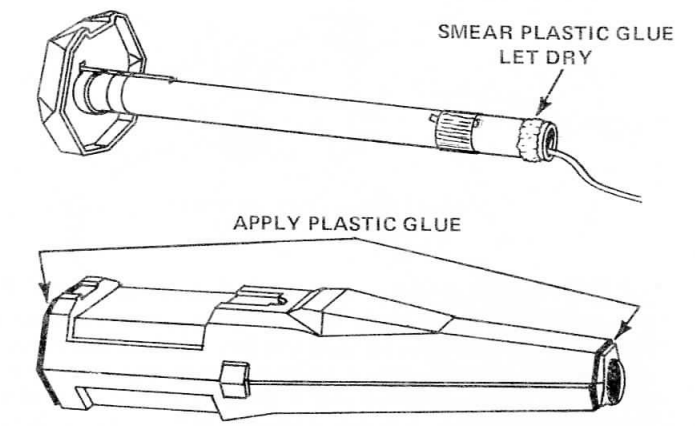



DOWEL
CLAY SNAKE
PLASTIC "FLASH"
CUT THRU DEPRESSED SECTION IN NOSE CONE. BE CAREFUL – DON'T CUT AWAY TOO MUCH
PACK ALL THE CLAY FIRMLY INTO NOSE

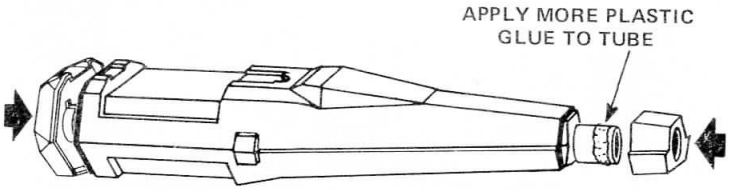
☒ **13** Thoroughly wash fuselage in lukewarm water to remove any mold release residue. Blot dry. Following the illustration, cut the fuselage apart at the points indicated. A razor saw works best for this. If one is not available, use your model knife. Make several light cuts rather than try to cut all the way through at once. Pierce a small hole through the dimpled area at the rear of the nose piece. Don't make this hole any larger than necessary to receive the shock cord and shroud lines. Carefully trim and sand away any "flash" from the part line. Install clay weight in the nose. Roll the clay into a thin "snake". Cut into 1/2" sections and drop through hole in rear of nose. Pack the clay firmly into the nose using a small dowel or stick.



☒ **14** Sand the front of the fuselage to remove excess material. The engine mount tube must fit easily thru the opening in the fuselage. Carefully trim the inside of the opening as shown. Fit the engine tube thru the opening to make sure it slides thru easily.

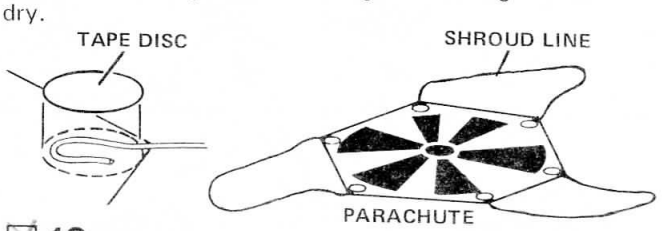


☒ **15** Smear a layer of plastic cement around the forward end of the engine mount tube. Let dry. Apply a bead of plastic

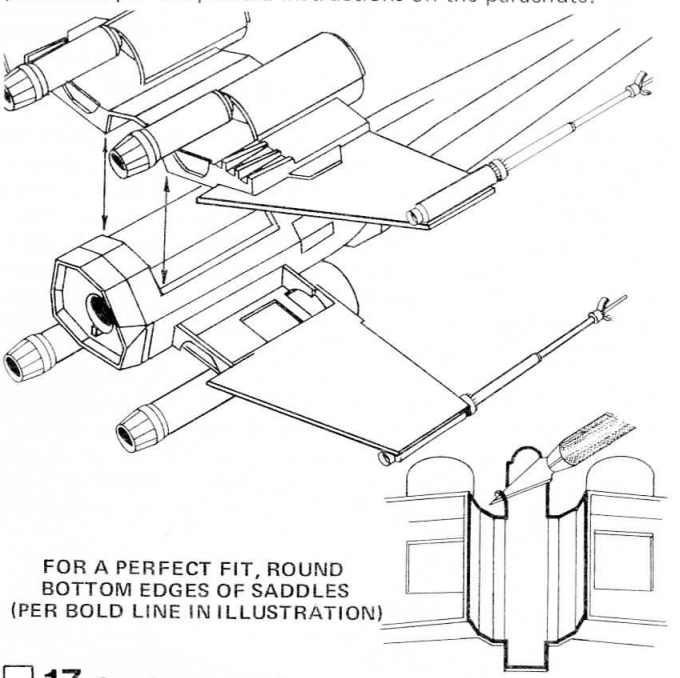


PUSH FUSEALAGE FORWARD CAP ONTO ASSEMBLY

glue around both ends of the fuselage. Slide the engine mount tube thru the fuselage from the rear. Place another bead of plastic glue around the front of the engine tube and push the forward cap into place. Use the palms of your hands to gently push both ends of the assembly so that front and rear caps are properly seated against the fuselage. Check alignment and let dry.



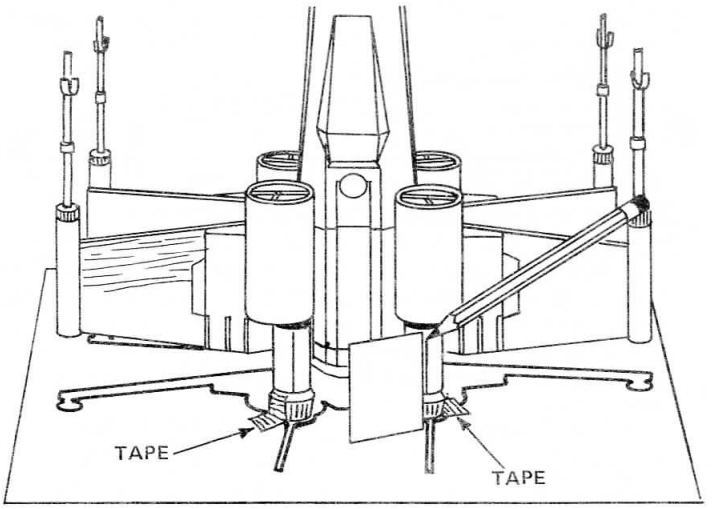
☒ **16** Find the parachute (part V), the shroud line material (part W), and the tape discs (part X). Cut out and assemble the parachute per the printed instructions on the parachute.

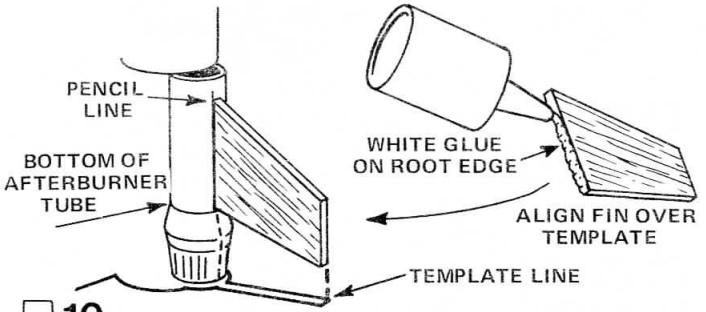


☐ **17** Set the upper wing assembly onto the fuselage and check fit with mating indented area of the fuselage. If the wing saddle does not fit exactly, lightly round the bottom edges of the saddle until a perfect fit is obtained. Apply plastic glue to all touching edges of the saddle and set into place. Hold until glue sets. Repeat proceedure with bottom wing saddle. Set model upright on afterburners and let dry.

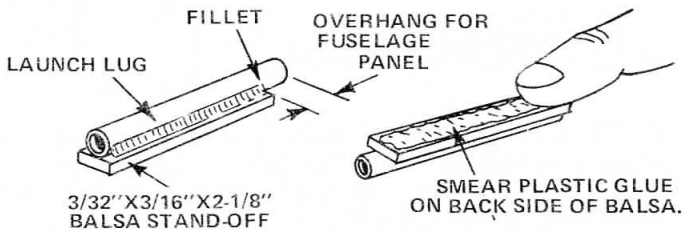
TIP EDGE
LEADING EDGE
TRAILING EDGE
ROOT EDGE SAND SQUARE
SAND LEADING, TRAILING, AND TIP EDGE ROUND
RUB SMALL AMOUNT OF GLUE ON ROOT EDGE OF FIN

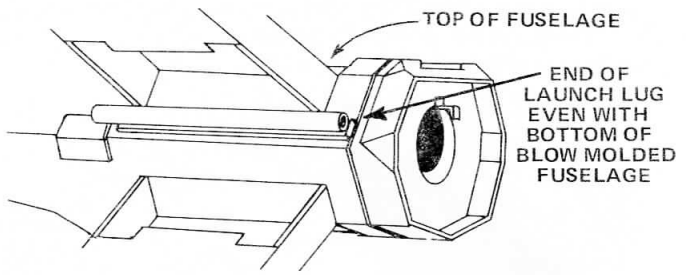
☐ **18** Lightly sand then remove the auxiliary fins from the balsa die-cut sheet with a sharp knife. Sand the leading, trailing and tip edge of all four fins round. Sand the root edge square. Rub a small amount of white glue into the root edge of each fin and allow to dry.



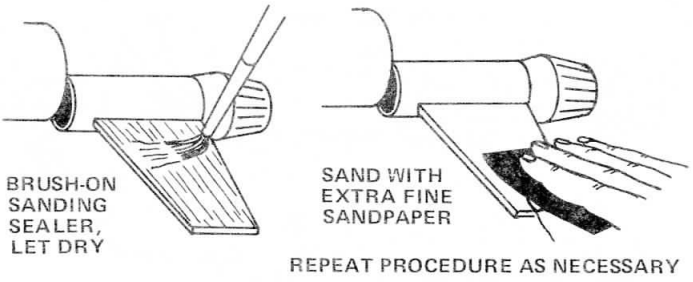


☐ **19** Set the model upright on the top view template of the gluing guide, position exactly over template and tape sides of afterburners to template. Use a triangle or some object with a straight 90° angle to draw a line up on the afterburner tubes directly above the auxiliary fin positions on the template. Apply a bead of white glue to the root edge of a fin. Attach to afterburner unit with the bottom edge of the fin even with the bottom of the tube. Hold the fin in place for a couple of minutes. Looking down on assembly from above, carefully move end of fin until it is lined up over the template. Attach remaining fins in same manner. Periodically check each fin to make sure it is still aligned over template. Let the assembly set for an hour. Remove from template sheet and run a fillet of white glue along both sides of each fin. Hold model horizontally for a few minutes to allow glue to set and set aside on afterburners to dry thoroughly.

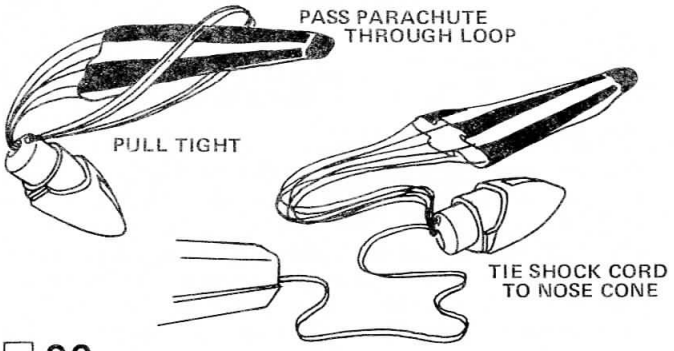




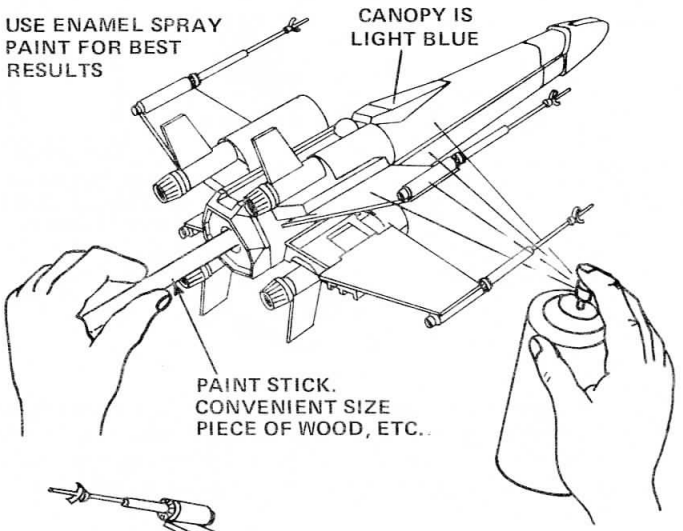
☐ **20** From the scrap material of the balsa fin sheet, cut a strip 3/16" wide by 2-1/8" long. Using white glue, attach launch lug (part Z) to this. When dry, fillet both sides with white glue and let dry. Smear a film of plastic glue on the back side of the balsa. Let dry. Apply more plastic glue to the balsa and press against fuselage in position shown.

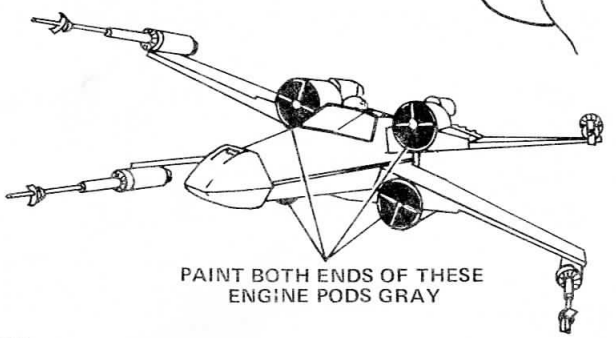


☐ **21** Refer to Step 9 and seal the auxiliary fin alternating coats of sanding sealer and light sanding.

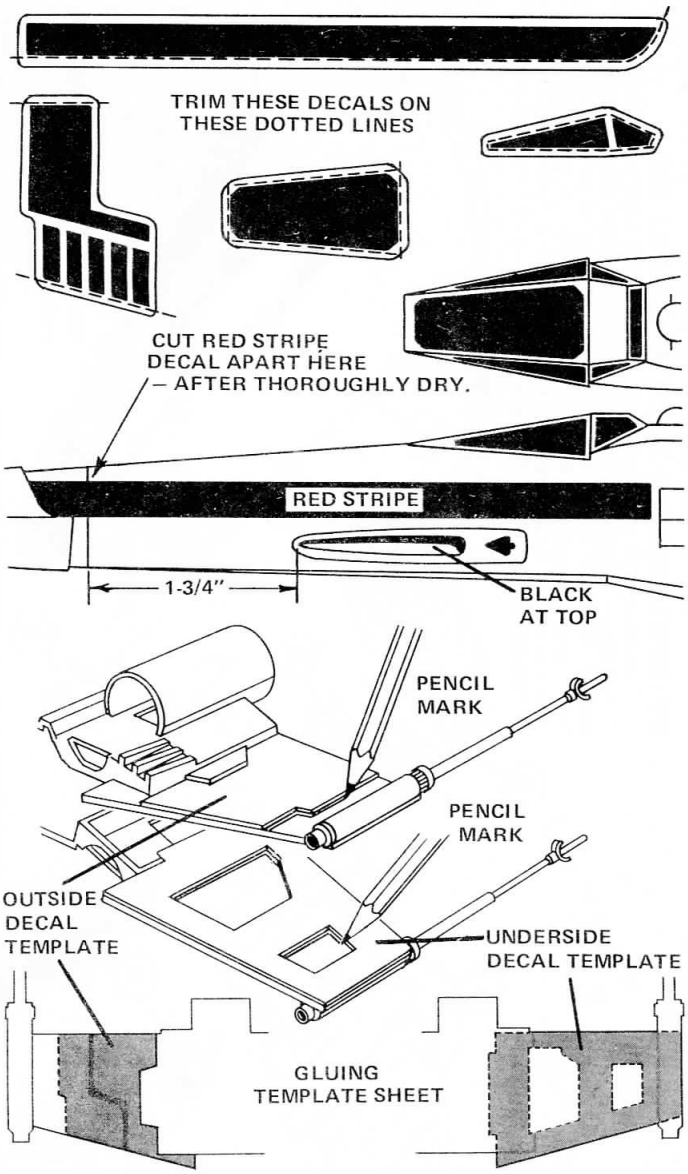


☐ **22** Attach the parachute to the nose cone. Gather the shroud line loops and pass them through the small hole made in Step 13. Pass the canopy through the loops and pull the 'chute lines taut. Set the knot with a drop of white glue. Tie the loose shock cord end to the nose cone at the same point.





☐ **23** Fold the parachute and install it with the shroud lines and shock cord in the body tube. Insert the nose cone. Carefully wipe all plastic parts with a damp cloth to remove oily fignerprints or mold release residue. Mount the model on a paint stick and give the model two light coats of flat white enamel allowing time between coats for drying. Use the molded canopy lines as a guide brush the canopy very light blue. Brush paint the inside of both ends of each power unit gray or flat gray. Use the panel card illustration as a guide.

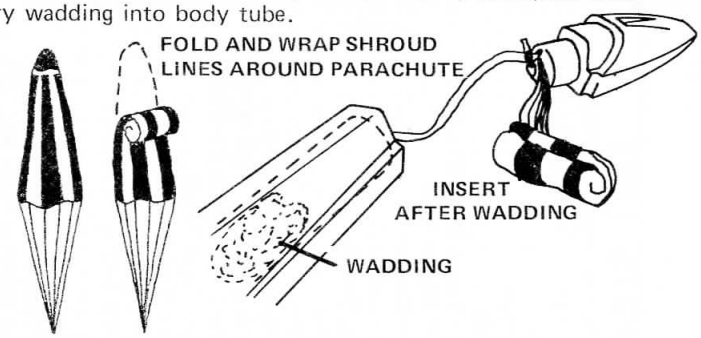


☐ **24** When paint is dry, apply decals. Locate decal sheet (part Y). Read instructions on back of decal for method of application. In some cases, to facilitate positioning of decals, part of the clear material surrounding the decal must be trimmed away. This will be noted where required. Using a straight edge and knife carefully cut out cockpit decals, trimming to within 1/32" of black windows. Apply decals, using illustration to position them. Cut out torpedo port decals and position on lower sides. Be sure you get the decals on the right sides. The black shadow area is at the top of the decal. Cut out red side stripes. Carefully trim bottom and front edge to within 1/32" of red decal. Apply stripes to the sides of the fuselage. Cut the two decal templates from the gluing template sheet as shown in the illustration. Mark the position for the red wing decals on the outside surface of all four wings. Cut out red decals. Trim away clear material from the top and bottom of each decal flush with the red material. Apply decals, carefully aligning with top and bottom of wings. Mark positions for gray "shadow" decals on the underside surface of all four wings. Cut out gray decals. Note that each gray decal consists of a large and a small gray panel connected by clear decal material. Do not cut between these panels. Apply gray decals. Cut out and apply Estes logo to bottom of fuselage. Let decals dry overnight.

After allowing decals to dry for 12 hours, spray the entire model with a clear flat spray enamel. Do not use a lacquer spray since this could destroy the decals. Cut through the side stripes along nose cone parting line. You are now ready to launch.

COUNTDOWN CHECKLIST

T-14 Pack four or five squares of loosely crumpled recovery wadding into body tube.

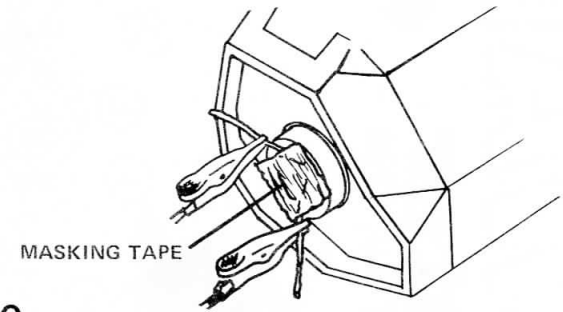


T-13 Fold the parachute into a triangular shape. Roll 'chute tightly as shown and wrap shroud lines around it. Slide 'chute into body above wadding. If 'chute is too large, unroll and repack until it slides easily into rocket. A fit that is too tight may prevent parachute from ejecting properly.

NOTE: DO NOT pack parachute until you are actually ready to launch. For maximum parachute reliability, lightly dust 'chute with ordinary talcum powder, especially in cold weather.

T-12 Pack shock cord neatly into rocket, then slide nose cone into place. Nose cone should separate easily from rocket body tube, but should not be extremely loose. If it is too tight, sand inside of body tube end and shoulder of nose cone with extra fine sandpaper.

T-11 Select an engine and install an igniter as directed in the engine instructions. Engines recommended for use with this rocket are B4-2, B4-4, B6-2, C6-3, and C6-5. We recommend a B4-2 for your first flight.



T-10 Insert engine into rocket. Engine hook must latch securely over end of engine.

T-9 Disarm launch panel---remove safety key.

T-8 Place rocket on launch pad, making sure rocket slides freely on launch rod. Clean micro-clips and attach them to igniter leads.

T-7 Clear the launch area, alert recovery crew and trackers. Check for low flying aircraft and unauthorized persons in recovery area.

T-6 Arm launch panel--insert safety key.

-5-4-3-2-1-LAUNCH!!

MISFIRE PROCEDURE

Occasionally an igniter will heat and burn into two parts without igniting the engine. This is almost always caused by a failure to install it correctly. Disarm launch panel, remove the model, clean igniter residue from nozzle, and install a new igniter. Follow launching procedure again.

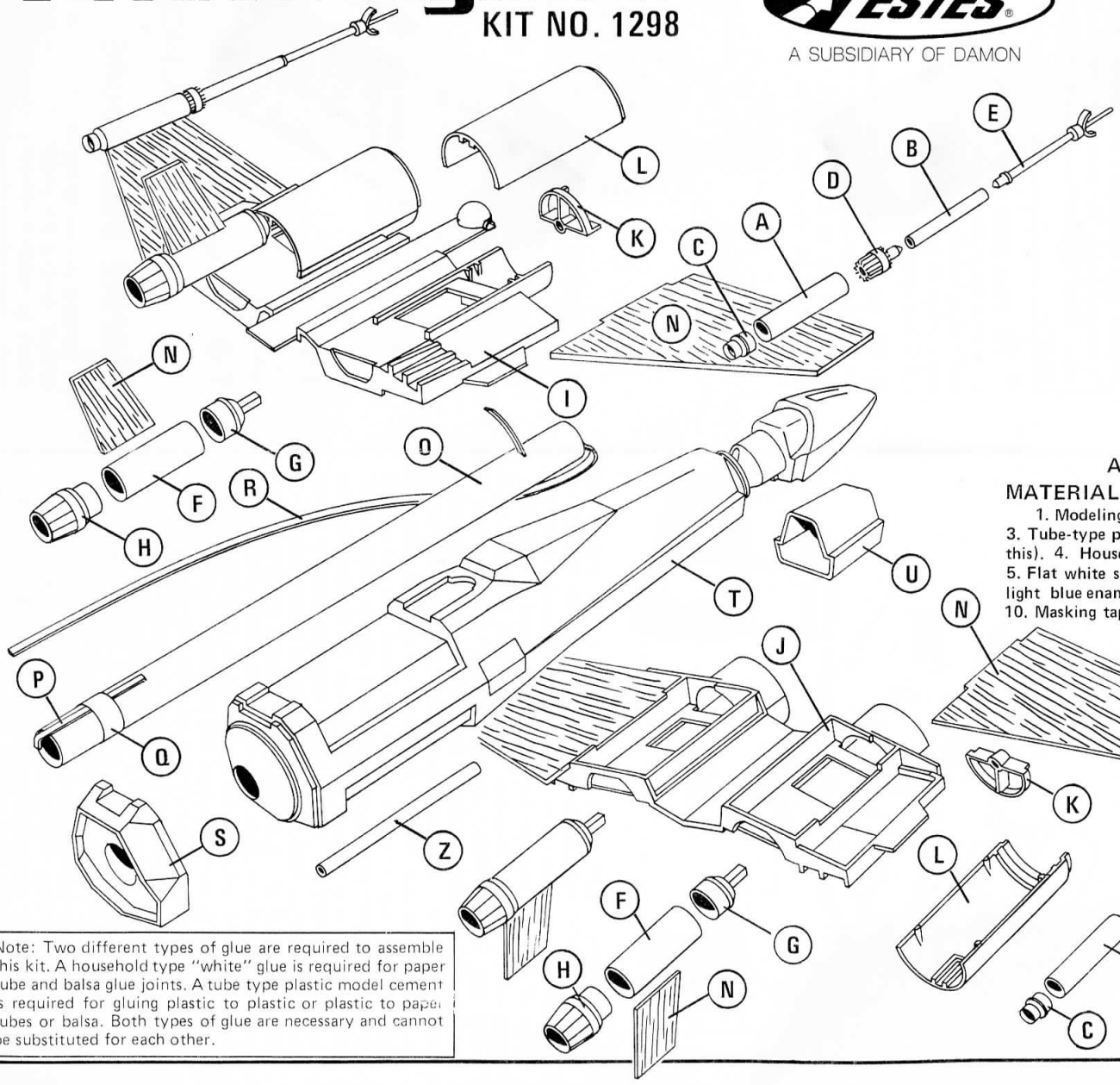
STAR WARS™

X-WING Fighter

KIT NO. 1298

ESTES®

A SUBSIDIARY OF DAMON

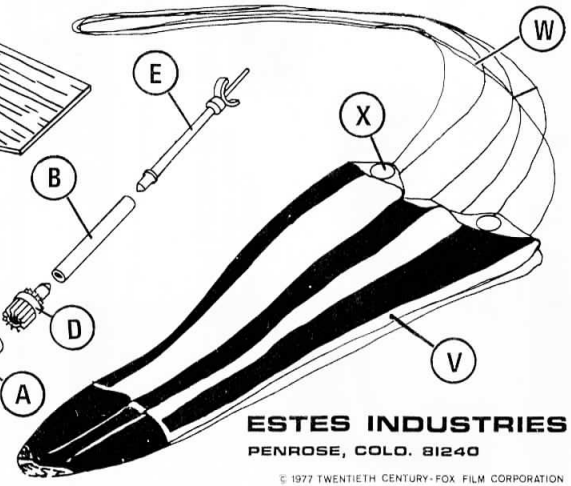


PARTS LIST

A)	4	Laser Pod Tubes (type BT-3XW)	30301
B)	4	Laser Extension Tubes (type LL-1XW)	38159
C)	4	Laser Caps	33114
D)	4	Laser Radiators	33113
E)	4	Laser Barrels	33112
F)	4	Afterburner Tubes (type BT-5XW)	30311
G)	4	Afterburner Engine Caps	33111
H)	4	Afterburner Nozzles	33110
I)	1	Upper Wing Saddle	33105
J)	1	Lower Wing Saddle	33106
K)	4	Engine Inlets	33109
L)	4	Engine Covers	33108
M)	1	Gluing Template (Not Shown)	84054
N)	1	Balsa Wing & Fin Sheet (type BF-98)	32305
O)	1	Engine Mount Tube (type BT-20XW)	30335
P)	1	Engine Hook (type EH-2)	35025
Q)	1	Engine Lock Ring (type HR-20)	30168
R)	1	Shock Cord (type SC-1B)	85734
S)	1	Fuselage Rear Cap	33104
T)	1	Fuselage	33102
U)	1	Fuselage Forward Cap	33107
V)	1	Parachute (type PK-12A)	85564
W)	1	Shroud Line Material (type SLT-72)	38237
X)	1	Tape Discs (type TD-3F)	38406
Y)	1	Decal (type KD-98) (Not Shown)	37104
Z)	1	Launch Lug (type LL-2B)	38178
AA)	1	Clay Weight (Not Shown)	85260

MATERIALS NEEDED TO COMPLETE THIS KIT

1. Modeling knife with sharp blade. 2. Fine (#320-#400 grit) sandpaper. 3. Tube-type plastic model cement (do not substitute liquid plastic cement for this). 4. Household "white glue" for gluing wood or all porous materials. 5. Flat white spray enamel. 6. Flat clear spray enamel. 7. Small bottle of light blue enamel. 8. Small bottle of light gray enamel. 9. Small (#0-#1) brush. 10. Masking tape - 1/2" to 3/4" wide X 8" long. 11. Balsa "filler coat".



Note: Two different types of glue are required to assemble this kit. A household type "white" glue is required for paper tube and balsa glue joints. A tube type plastic model cement is required for gluing plastic to plastic or plastic to paper tubes or balsa. Both types of glue are necessary and cannot be substituted for each other.

ESTES INDUSTRIES

PENROSE, COLO. 81240

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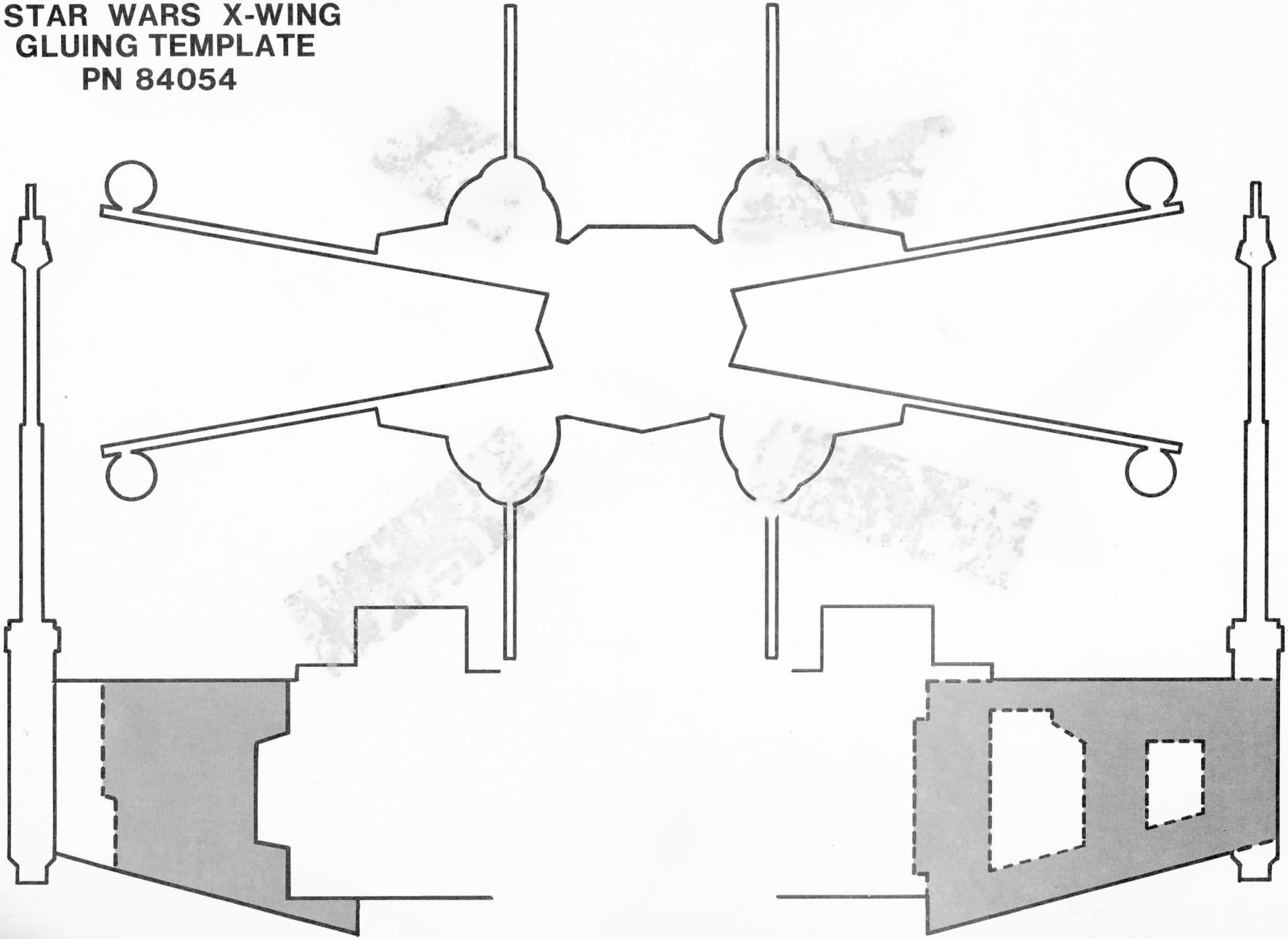
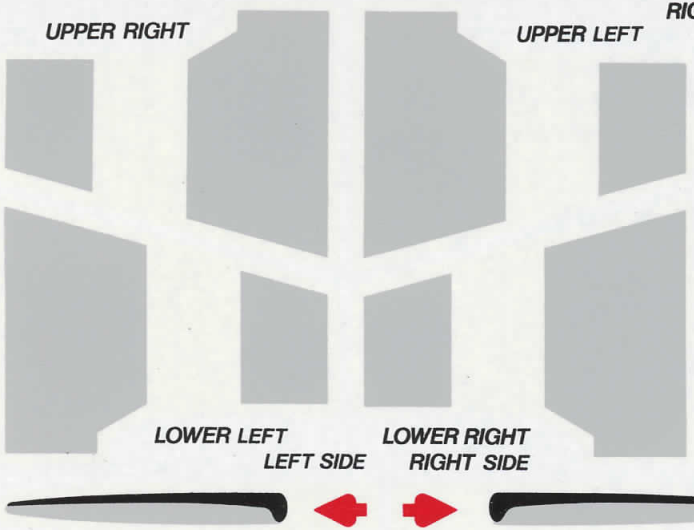
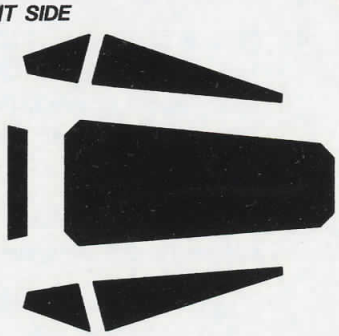
STAR WARS X-WING
GLUING TEMPLATE
PN 84054







ESTES INDUSTRIES
KD-98
PN 37104

INSTRUCTIONS

1. Cut decals apart.
2. To transfer, dip decal into water for approximately 30 seconds or until decal slides on paper backing. Slide decal off paper onto desired surface.
3. Blot dry with clean damp cloth. Allow to dry 24 hours.

ESTES INDUSTRIES, INC.
Box 227
PENROSE, COLORADO d

PK-12A PARA-PAK

PARACHUTE ASSEMBLY INSTRUCTIONS

PN 38202

(1) CUT OUT PARACHUTE CANOPY CAREFULLY ALONG DOTTED LINES. CUT PARACHUTE SHROUD LINE INTO THREE EQUAL LENGTHS.

CUT OUT CAREFULLY ALONG DOTTED LINES

1

2

(2) PLACE END OF SHROUD LINE OVER CIRCLE AT PARACHUTE CORNER. POSITION AND SECURE LINE WITH TAPE DISC AS SHOWN IN FIGURE 1. PRESS DISC FIRMLY INTO PLACE. ATTACH REMAINING LINES TO ADJACENT CORNERS OF PARACHUTE AS IN FIGURE 2.

(3) HOLD CANOPY AT ITS CENTER, PRINTED SIDE OUT. PULL LINES TOGETHER AND EVEN UP ENDS.

CUT OUT CAREFULLY ALONG DOTTED LINES